

protein and phospholipid methylations. The series of eight articles demonstrate clearly the enormous ramifications of the subject and the interdigitation with diverse areas of Biochemistry. The second section beginning with a welcome overview deals with nucleic acid methylations. Section three contains nine articles under the general heading Regulation of *S*-Adenosylmethionine, *S*-Adenosylhomocysteine and Methylthioadenosine Metabolism. The final sections concentrate on more applied aspects; Clinical Aspects of AdoMet includes information on AdoMet as a drug and, for example, its role in neuropsychiatry and knee and hip arthrosis. The final section is concerned with transmethylation inhibitors, their design and biological evaluation.

This is an extremely valuable volume for all Life Scientists because it performs the exceedingly important function of gathering together facts, opinions and projections about a fundamental and fast-moving scientific area. The material that it contains impinges on so many seemingly disparate aspects of Biology that a wide readership may be anticipated. In this connection it is interesting to note the advice given on the book jacket: 'Discover Why and How *S*-Adenosylmethionine – the Long-

Sought "Active Methyl Donor" – Ranks with ATP as a Pivotal Molecule in Biology...!' While the contributions enhance the reputation of AdoMet as an undoubtedly central molecule, they also provide evidence that comparisons of status with ATP are premature. There is yet so much to be learned about the biological sequelae of methylations and indeed some of the ideas on the pivotal role of AdoMet methylations expressed in the book have already been superseded. This is inevitable in such a fast-moving field but it does illustrate the status of AdoMet and methylation reactions.

In every scientific meeting the contributions vary a good deal in range and content and this one is no exception. There is unevenness with respect to experimental detail no doubt reflecting the variation in content of the oral contributions. Aside from unnecessary experimental detail that is surely best available from other sources the individual contributions are informative and their range reflects accurately the state of the art. Anyone with even a passing interest in AdoMet will want to possess this book. It is to be regretted the price will no doubt place it out of reach for many.

G.M. Powell

Modern Cell Biology, Volume 4

Edited by Birgit H. Satir

Alan R. Liss; New York, 1985

x + 234 pages. £28.00

Issuing a series of annual volumes with the title 'Modern Cell Biology' is something of a hostage to fortune because even if you convince your readers that the latest volume is indeed modern very soon the long line of volumes on the library shelves will persuade the students that very little of it can be modern. This series has now reached volume 4 and has appeared somewhat irregularly. There seems to be no absolute assurance that it is going to continue. There are five articles in the latest volume each round about forty to fifty pages in length.

Peter Satir writes on the control of ciliary motility, H. Rottenberg on chemosmotic and intramembrane coupling in energy conversion, Peter Ekblom and Emma Thesleff on the role of transferrin and ECMs in kidney development, while Gagolev and Sherman report on mechanisms of bacterial toxin action. The book concludes with a fairly long review by Larsen and Risinger on membrane junctions giving particular emphasis to the gap junction, the tight junction, and the desmosome. The reviews are fairly comprehensive

and well written. Several of them do not seem to be particularly up-to-date in quoting the literature, and indeed the one on membrane junctions appears to be largely confined to the pre-1983 literature from the United States alone. In general it must be said that the references provided do not include the latest work and there are strong reasons to suspect that the articles may have been rather delayed in press. It would certainly help if the

reviews contained, in future, a date on them indicating the year of latest publications considered.

When you compare this series of reviews and their price with the recently inaugurated Annual Review of Cell Biology, one has to come to the conclusion that Modern Cell Biology is not a series which provides really good value for money.

Adam Curtis

Vitamin D, Chemical, Biochemical and Clinical Update

Edited by A.W. Norman, K. Schafer, H.-G. Grigoleit and D.V. Herrath

De Gruyter; Berlin, 1985

xliii + 1248 pages. DM 340.00, \$138.00

This book is the publication resulting from the Proceedings of the Sixth Workshop on vitamin D held at Merano, Italy in March 1985. Interest in vitamin D increased at a quite dramatic rate throughout the 1970's following the demonstration in Cambridge and Riverside during the three years from 1968 that vitamin D is simply a precursor of a steroid hormone – 1,25 dihydroxyvitamin D. This finding literally revolutionised our understanding of the regulation of Ca homeostasis and the approach which had to be taken to achieve further progress. This series of vitamin D workshops began in 1973 and grew with the appreciation of the importance of these discoveries for biology and clinical medicine. From the first conference to the present one the number of participants grew from 56 to 474. A feature of these conferences is that all posters presented are published in the Conference Proceedings. Accordingly the position was reached at this meeting whereby there were 0.96 presentations per delegate resulting in a book of 1391 pages costing 340 DM!

The book contains sections on all aspects of vitamin D from chemistry through biochemistry and physiology to clinical medicine. In most topics there are one or more extended papers from invited

speakers at the Conference supported by shorter papers from the other participants. The effect is to gather together in one volume a most comprehensive account of research being carried out in 1985 on vitamin D. Despite this enormous research activity it is noticeable that some of the important questions are still unsolved and are receiving little attention. Examples are the molecular events in the conversion of 25-OHD₃ to 1,25-(OH)₂D₃, the physiological effect of 1,25-(OH)₂D in the absorption of Ca and the action of vitamin D on bone. The conference spent most time on an aspect not considered before the discovery of 1,25-(OH)₂D, namely the hormone's effect on the immune and haematopoietic systems. However, the physiological importance of these effects is unclear. The clinical usefulness of 1,25-(OH)₂D in treatment of renal osteodystrophy is now established and the conference reviewed efforts to use the hormone in so far futile attempts to treat osteoporosis. Attendance at the workshop may have been stimulating, but this book is clearly not meant to be read from cover to cover and its main use is as a record of the proceedings.

D.E.M. Lawson